

Remarks

Claims 1-20 are pending in this application. Applicants have amended claims 1-3 and 14-16 to clarify the claimed invention. Applicants respectfully request favorable reconsideration of this application.

The Examiner rejects claims 1-20 under 35 U.S.C. § 102(e) as being anticipated by U.S. patent 6,975,966 to Scott et al.

Scott et al. does not disclose the invention recited in claim 1 since, among other things, Scott et al. does not disclose a method that includes attaching a safety-hardware unit to a single controller for increasing a safety integrity level. As discussed in the specification, advantages of such a method include increasing a safety level of the control system. The safety-hardware unit makes it possible to utilize the controller used for non-safety related functions by not using the safety-hardware unit. By not utilizing the safety-hardware unit for non-safety related functions, the controller may be less costly and faster than if a full safety level use of the control system. The safety-hardware unit can permit a controller not originally installed for safety related control. The safety-hardware unit also permit a simpler user interface to be utilized.

Scott et al. only discloses attaching devices to a backplane. Scott et al. discloses a safety system that is physically and logically integrated with a process control system such that the safety system and the process control system can use common communication, diagnostic and display hardware and software within the process plant while still providing functional isolation

between the safety system controllers and the process control system controllers. This is as opposed to conventional process plants that isolate process control and safety systems for security purposes.

On the other hand, the invention recited in claims 1 and 15 includes a structure as illustrated in Fig 3 and described in the specification. By attaching the safety hardware unit to a single controller, the safety hardware unit can monitor the operation of the single controller. Only one safety hardware unit is attached to one controller and one safety hardware unit can only be attached to one controller at any one time. The safety hardware unit is thereby coupled to the controller and can, for example, monitor input and output signals to/from the controller to verify proper operation. Any deviation from an expected pattern of signals can be detected by the safety hardware unit. Thus, a higher level of safety is achieved without having to use redundant controllers.

Additionally, Scott et al. does not suggest a method for increasing the safety integrity level of a single controller. Safety integrity level is well defined, such as by standard IEC 61508 or later standard IEC. The claimed invention meets the safety integrity level. However, Scott et al. does not suggest increased safety integrity level. Rather, Scott et al. discloses an integrated process control and safety system. The Examiner argues that at col. 1, lines 15-4, Scott et al. discloses this feature. However, Scott et al. does not include any teaching or suggesting how a safety integrity level of a single controller can be increased. Scott et al. discloses an entirely different purpose, resulting in from an entirely different structure and method.

In view of the above, Scott et al. does not disclose all elements of the invention recited in claims 1-3 and 5-20. Since Scott et al. does not disclose all elements of the invention recited in claims 1-3 and 5-20, the invention recited in claims 1-3 and 5-20, is not properly rejected under 35 U.S.C. § 102(b). For an anticipation rejection under 35 U.S.C. § 102(b) no difference may exist between the claimed invention and the reference disclosure. *See Scripps Clinic and Research Foundation v. Genentech, Inc.*, 18 U.S.P.Q. 841 (C.A.F.C. 1984).

Along these lines, anticipation requires the disclosure, in a cited reference, of each and every recitation, as set forth in the claims. *See Hodosh v. Block Drug Co.*, 229 U.S.P.Q. 182 (Fed. Cir. 1986); *Titanium Metals Corp. v. Banner*, 227 U.S.P.Q. 773 (Fed. Cir. 1985); *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986); and *Akzo N.V. v. U.S. International Trade Commissioner*, 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986).

In view of the above, the reference relied upon in the office action does not disclose patentable features of the claimed invention. Therefore, the reference relied upon in the office action does not anticipate the claimed invention. Accordingly, Applicants submit that the claimed invention is patentable over the cited reference.

If an interview would advance the prosecution of this application, Applicants respectfully urge the Examiner to contact the undersigned at the telephone number listed below.

The undersigned authorizes the Commissioner to charge insufficient fees and credit

overpayment associated with this communication to Deposit Account No. 22-0261.

Respectfully submitted,

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